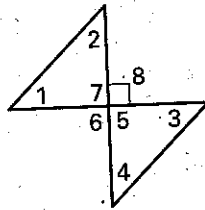
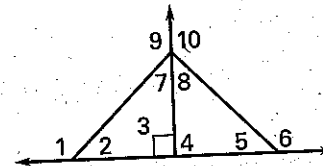


Identify the pair(s) of congruent angles in the figure. Explain how you know they are congruent.

1.  $\angle 1$  and  $\angle 2$  are complementary.  
 $\angle 2$  and  $\angle 3$  are complementary.  
 $\angle 1$  and  $\angle 4$  are complementary.

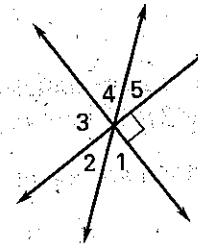


2.  $\angle 1$  and  $\angle 7$  are supplementary.  
 $\angle 8$  and  $\angle 1$  are supplementary.  
 $\angle 5$  and  $\angle 1$  are supplementary.



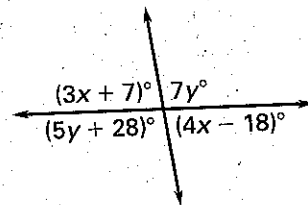
Use the diagram at the right.

3. If  $m\angle 1 = 53^\circ$ , find  $m\angle 2$ ,  $m\angle 3$ ,  $m\angle 4$ , and  $m\angle 5$ .
4. If  $m\angle 2 = 34^\circ$ , find  $m\angle 1$ ,  $m\angle 3$ ,  $m\angle 4$ , and  $m\angle 5$ .
5. If  $m\angle 5 = 39^\circ$ , find  $m\angle 1$ ,  $m\angle 2$ ,  $m\angle 3$ , and  $m\angle 4$ .
6. If  $m\angle 4 + m\angle 3 = 144^\circ$ , find  $m\angle 1$ ,  $m\angle 2$ , and  $m\angle 5$ .

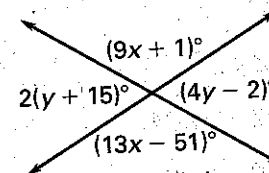


Find the values of the variables.

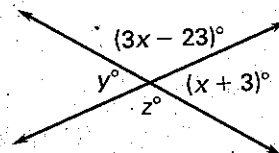
7.



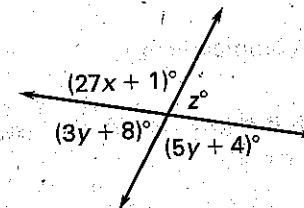
8.



9.



10.



In the diagram,  $\overline{AE} \perp \overline{CG}$ ,  $m\angle ASD = 118^\circ$  and  $m\angle HSB = 96^\circ$ . Find the indicated angle measure.

11. Find  $m\angle HSE$ .
12. Find  $m\angle FSD$ .
13. Find  $m\angle BSD$ .
14. Find  $m\angle DSE$ .
15. Find  $m\angle CSD$ .
16. Find  $m\angle GSF$ .

